

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
Honolulu, Hawaii

REF:OCCL:DH

CDUA KA-3309

Acceptance Date: May 15, 2006
180-Day Exp. Date: November 11, 2006

October 13, 2006

**Board of Land and
Natural Resources
State of Hawaii
Honolulu, Hawaii**

REGARDING: Conservation District Use Application (CDUA) KA-3309 for
Proposed Browning Single Family Residence (SFR)

LANDOWNER: Kent and Kathryn Browning, 64 Saddleback Road, Rolling Hills,
California, 90274

CONSULTANT: Ben Welborn, Landmark Consulting Services, Inc., P.O. Box 915,
Hanalei, Hawaii 96714, 808-828-6332

LOCATION: Haena, Island of Kauai

TMK: (4) 5-9-005:029

AREA OF PARCEL 29,746 Square Feet (23,714 square foot pending Shoreline
Certification)

USE: 3,500 Square Feet

SUBZONE: Limited

DESCRIPTION OF AREA/CURRENT USE:

The proposed project is located on a 29,746 square foot (23,714 square foot pending Shoreline Certification) subject parcel, located in Haena, District of Hanalei, on the Island of Kauai. The subject parcel is bounded on the east by Road "E," to the north by the ocean, to the south by Kuhio Highway, and to the west by private landowners. Access to the subject parcel is provided by Kuhio Highway (**Exhibits 1, 2 & 3**).

PROPOSED PROJECT:

The Browning's propose to construct a SFR in Haena, Island of Kauai, pursuant to Section 13-5-23, Hawaii Administrative Rules (HAR), L-6, SINGLE FAMILY RESIDENCES, D-1, "a single family residence in a floodplain or coastal high hazard area that conforms to applicable county regulations regarding the National Flood Insurance Program and single family residential standards as outlined in this chapter."

The applicant proposes to construct a 3,480 square foot elevated SFR (2,785 square feet of interior living space - four (4) bedrooms, four (4) bathrooms, kitchen, great room, laundry room, stairwell, and storage areas, entryway, stairs, 695 square feet of decks). The SFR's architecture is of a simple, contemporary tropical design, and will be painted in earth tone colors. Additional landscaping is proposed (**Exhibit 4**).

According to the applicant, the SFR is located in the State Land Use (SLU) Conservation District, Limited subzone, and in a "Coastal High Hazard Area (Susceptible to Tsunami Inundation). On Flood Insurance Rate Map (FIRM) Panel 15000-20030-D (dated October 18, 2002), the subject parcel is located within Flood Zone VE 30, which is designated as a coastal flood area with a velocity hazard due to its potential susceptibility to (100 year) inundation by tsunami; Base Flood Elevations (BFE) have been determined at thirty (30) feet above mean sea level (MSL).

The existing grade of the subject parcel is approximately 15 feet to 19 feet 8 inches above MSL, thus the finished floor height of the building will range from approximately 10 feet 4 inches to 15 feet above the existing grade in order to comply with federal flood standards. This would allow the applicant to construct the enclosed living areas, and overlying roof structure of the SFR within a fifteen (15) foot building height envelope above the minimum MSL floor elevation as required by flood elevations. Therefore, the SFR has a maximum height of thirty (30) feet to meet Federal and County flood regulations (**Exhibit 5**).

The applicant is requesting a variance of five (5) feet from the Maximum Height Limit (MHL) of twenty-five (25) feet, pursuant to HAR, Section 13-5-41(a), SINGLE FAMILY RESIDENCES; STANDARDS, which notes "the maximum height of the building shall not exceed twenty-five feet, measured from the highest point of the roof structure, down to the lower of the existing or finished grade at the lowest corner of the building."

Existing vegetation consists of niu, golden pothos, Bermuda grass, itchy crab grass, Hilo grass, elephants foot, sourbush, wedelia, Tree heliotrope, papaya, ironwood, Alexandrian laurel, Indian almond, candle bush, Spanish clover, Java plum, buttonweed, Jamaican vervain. Animals found at on the parcel were common myna, wild jungle fowl, red-crested cardinal, and Japanese white-eye. The applicant notes there are no rare or endangered native plants and/or animals present on the subject parcel.

The applicant notes an Archaeological Inventory Survey of the subject property was conducted, and no significant cultural sites and/or deposits were discovered. Utilities, such as, electrical, water, telephone, cable, and natural gas services are available to the subject property. Wastewater will be treated by an individual wastewater system septic tank.

AGENCY COMMENTS:

The CDUA was referred for review and comment to the Department of Land and Natural Resources' (DLNR) – Division of Forestry and Wildlife, Kauai Branch - Historic Preservation Division, Engineering Division, Kauai District Land Office, Commission on Water Resource Management, Division of Aquatic Resources, Division of Conservation and Resources Enforcement, Kauai County Planning Department, County of Kauai Council Services, Office of Hawaiian Affairs, Department of Health, Office of Environmental Quality Control, and Princeville Public Library. The following comments were received:

Division of Forestry and Wildlife

No Comment.

Engineering Division

The project site, according to the FIRM is located in Flood Zone VE; the National Flood Insurance program regulates developments within VE. The project site must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard is undertaken.

Kauai District Land Office

No Comment.

Commission on Water Resource Management

No Comment.

Division of Aquatic Resources

Significant impacts to aquatic resource values are not expected from the proposed SFR provided construction activities are restricted to periods of minimal rainfall and low runoff. Precautions should be taken to prevent debris, landscaping chemicals, eroded soil, petroleum products and other potential contaminants from flowing, blowing or leaching into the aquatic environment. Additional or undescribed construction or landscape modifications within the Conservation District should be submitted to the department for review.

Applicant Response: Construction activities (particularly ground altering activities) will be restricted to periods of minimal rainfall and/or low runoff. The areas denuded of vegetation or susceptible to erosion shall be re-stabilized through the planting of new vegetation, the use of silt retention measures (if necessary), and generally through the implementation of Best Management Practices (BMP). Precautions will be taken to prevent debris, landscaping chemicals, eroded soil, petroleum products and other potential contaminants from flowing, blowing or leaching into coastal waters.

Historic Preservation Division

An archeological assessment report submitted for the CDUA was accepted (LOG NO: 2005.2593, DOC NO: 0511NM51). Archeological monitoring should take place for all

subsurface construction work, as construction will occur in sandy soils (*Jaucus series*); there is a high probability of unearthing human burial remains in these soils. A qualified archeological monitor shall be present during all ground altering activities conducted in the project area in order to document any historic properties, which may be encountered during the proposed undertaking, and to provide mitigation measures as necessary. An acceptable archeological monitoring plan¹ will need to be submitted to the HPD for review prior to the commencement of any ground-altering activities. HPD should be notified upon the on-set and completion of the proposed undertaking. A Burial Treatment Plan (BTP) shall be prepared and submitted to HPD for review and approval for burial discoveries encountered during the project; the plan shall be prepared following consultation with Native Hawaiians and OHA, and shall adhere to the procedures outlined in Chapter 6E-43, HAR.

Applicant Response: A qualified archeological monitor shall be present during all ground-altering activities, which are conducted in the project area in order to document any historic properties, which may be encountered, and to provide mitigation measures as necessary. An archeological monitoring plan will be prepared and submitted to the HPD for review and approval prior to the commencement of any ground-altering activities and will contain the nine specifications. The HPD will be notified upon the on-set and completion of the proposed project. If burials are discovered a BTP shall be prepared and submitted to the HPD for review and approval; the plan shall be prepared following consultation with Native Hawaiians, the Kauai/Niihau Islands Burial Council, and OHA, and adhere to the procedures outlined in Chapter 6E-43, HAR.

Kauai County Planning Department

We note the following: 1) similar to the County's Open District standards, lot coverage of impervious surface should not exceed 10%; 2) portions of the proposed rock wall lie within the 40 foot shoreline setback – unless a shoreline setback variance is authorized by the County, the extent of the improvement should be revised; 3) Roadway E is for public access and parking purposed – no access to this property shall be permitted from the roadway; 4) bedroom 3 requires an interior connection; 5) exterior colors and finishes of all structures and roof colors shall be limited to medium or dark earth tones (green, grey, brown) or other color compatible with the area's natural surroundings. Use of reflective materials or colors shall be prohibited. The proposed color scheme shall be submitted to the Planning Department for review and approval prior to building permit application; 6) a native species landscape plan to screen the proposed structures should be approved for by the OCCL; 7) external lighting shall be used (shielded lights, cut-off luminaries, indirect lighting); spotlights aimed upwards or spotlighting the structures and/or physical features should be prohibited; and 8) an understanding of the extent of maintenance should be established and whether healthy trees will be removed.

¹ The archeological monitoring plan should contain: 1) kinds of remains are anticipated and where in the construction area the remains are likely to be found; 2) how the remains and deposits will be documented; 3) how the expected types of remains will be treated; 4) the archeologists conducting the monitoring has the authority to halt the construction in the immediate area of the find in order to carry out the plan; 5) a coordination meeting between the archeologist and construction crew is scheduled, so that the construction team is aware of the plan; 6) what laboratory work will be done on remains that are collected; 7) a schedule of report preparation; 8) details concerning the archiving of any collections that are made; and 9) an acceptable report documenting the findings of the monitoring activities shall be submitted to the HPD for review following the completion of the proposed undertaking.

Applicant Response: The County defers to the State when determining the zoning and land use requirements for actions in the Conservation District. SFR standards Chapter 13-5, HAR do not require a lot coverage limitation of 10% but set forth a Maximum Developable Area (MDA) of 3,500 square feet for lots which are up to one acre in size; the proposed SFR is in compliance with the State's guidelines.

We are requesting the proposed dry-stack lava rock wall for the following reasons: 1) the lack of public restroom facilities, and the practice of people using bushes to relieve themselves; 2) heightened shoreline erosion caused by heavy foot traffic along the shoreline reach of the right of way; and 3) liability and security reasons. The wall will prevent the trespass of beachgoers onto the Browning parcel, and the associated acceleration of erosion along the seaward edge of the property. The boundary wall would be heavily landscaped (interior/backside) to soften the visual impact and to provide a buffer between the SFR and the public.

Chapter 13-5, HAR, does not disallow a detached bedroom. The applicants understand a detached bedroom might be converted into a separate dwelling or maybe used as a transient accommodation. Bedroom # 3 can only be accessed by passing through the main house; there is no separate staircase or independent access way. A deed restriction will be added to allow the 3rd bedroom as depicted and preventing the applicants and/or future owners from constructing a separate stairwell to access the bedroom.

The subject parcel will be accessed from Kuhio Highway. The applicants will comply with the Planning Departments request regarding the SFR's exterior color, use of reflective materials, as outlined in the Residential Standards of Chapter 13-5, HAR. A landscape plan has been submitted for review; over time invasive species will be completely removed and native and introduced landscape varieties will landscape the parcel. The applicants will comply with the department's requests regarding lighting.

ANALYSIS:

Following review and acceptance for processing, the applicant was notified, by letter dated May 15, 2006 that:

1. The proposed use is an identified land use (L-6, SINGLE FAMILY RESIDENCES, D-1) within the Limited Subzone of the Conservation District, according to Section 13-5-23, Hawaii Administrative Rules (HAR); please be advised, however, that this finding does not constitute approval of the proposal;
2. Pursuant to Section 13-5-40(a), HAR, a public hearing will not be required; and
3. In conformance with Chapter 343, (HRS), as amended, and Chapter 11-200, HAR, a finding of no significant impact (FONSI) to the environment is anticipated for the proposed project. The draft environmental assessment (DEA) for the project will be submitted to OEQC to be published in the May 23, 2006 issue of the Environmental Notice.

Staff Note: The DEA was actually published in the June 8, 2006 issue of the Environmental Notice. The FONSI was published in the OEQC's Environmental Notice on August 23, 2006. However, the OCCL noted two outstanding issues: 1) the possible change to the location of the Browning's proposed SFR after the pending Shoreline Certification has been approved by the Chairperson of the BLNR; and 2) the construction of the proposed lava rock wall. Staff also notes the Shoreline Setback was a third unresolved issue.

13-5-30 CRITERIA:

The following discussion evaluates the merits of the proposed land use by applying the criteria established in Section 13-5-30 HAR.

- 1) *The proposed use is consistent with the purpose of the Conservation District.*

The objective of the Conservation District is to conserve, protect and preserve the important natural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety and welfare.

Staff is of the opinion that the proposed action will increase structural density on a vacant parcel, however the action is consistent with the purpose of the Conservation District. The area's natural resources will be preserved and potential impacts will be minimized, with the appropriate mitigation measures (adequate shoreline setback distance).

- 2) *The proposed land use is consistent with the objectives of the Subzone of the land on which the use will occur.*

The objective of the Limited subzone is to limit uses where natural conditions suggest constraints on human activities.

Staff notes the Browning's are proposing to set the SFR 61 feet back from the pending Certified Shoreline. Staff believes that the shoreline setback distance is not sufficient to protect the homeowner from future erosion hazards. Staff recommends a larger setback distance be used as an adequate mitigation measure to protect the natural resources of the coastal area. A large buffer will also required between any structures and the shoreline to protect the public from future damages and/or impacts.

- 3) *The proposed land use complies with the provisions and guidelines contained in Chapter 205A, HRS entitled "Coastal Zone Management", where applicable.*

The Kauai County Planning Department noted via letter, dated February 2, 2005, that the proposed project lies within the Special Management Area (SMA), but the construction of a SFR's is exempt from the County's SMA Regulations.

- 4) *The proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community or region.*

Staff notes that the proposed project will not have any adverse impact to existing natural resources within the surrounding area, community or region, provided that an appropriate shoreline setback is used. The site is currently landscaped. Staff notes that the proposed project will not detract from the rural character of the area.

- 5) *The proposed land use, including buildings, structures and facilities, shall be compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels.*

Staff is of the opinion the proposed SFR will fit into the locality and surrounding areas, with the use of Best Management Practices and appropriate setback distance, and without significant or deleterious effects to the locality, surrounding area and parcel.

- 6) *The existing physical and environmental aspects of the land, such as natural beauty and open space characteristics, will be preserved or improved upon, whichever is applicable.*

Staff notes the applicant has taken the appropriate steps to mitigate any potential impacts, and to maximize and enhance the natural beauty and open space characteristics of the subject parcel. The proposed project is intended to blend in visually with the surrounding area.

- 7) *Subdivision of land will not be utilized to increase the intensity of land uses in the Conservation District.*

The proposed project does not involve subdivision of Conservation District land.

- 8) *The proposed land use will not be materially detrimental to the public health, safety and welfare.*

The proposed action will not be materially detrimental to the public health, safety and welfare. Staff concurs with the applicant.

DISCUSSION:

Staff reiterates that the Board of Land Natural Resources' (BLNR) 1981 policy amendment allows single-family residential use in the partitioned area located in the Limited subzone known as the "Haena Hui Subdivision." Haena Hui is different than other areas within the Conservation District due to its unique history.

In 1967, the Kauai Courts approved the Haena Hui Subdivision. This was done without the consent of the BLNR. The BLNR considered this issue in 1980 and determined that the individuals involved acted in good faith by applying to and following the dictates of the courts in the matter, albeit the oversight of the Board's requirements to first obtain a permit for subdivision. Following this chain of events, the Board adopted a policy that residential lots within Haena Hui subdivision (save for certain lots with poor developmental qualities, such as some beach lots), would qualify for one residential structure, subject to some special and standard conditions, which are herein incorporated.

Notwithstanding this policy, and notwithstanding a change in the policy by the BLNR, the BLNR still retains its discretionary authority over all matters with respect to land use within the Conservation District

The proposed use is an identified land use, pursuant to Section 13-5-23, Hawaii Administrative Rules (HAR), L-6, SINGLE FAMILY RESIDENCES, D-1." The applicant proposes to construct a 3,480 square foot elevated SFR (entryway, storage area, stairs, living space, bedrooms, bathrooms, kitchen, great room, laundry room, stairwell, storage area). Staff notes the proposed SFR is still less than the 3,500 square foot SFR that would normally be allowed under HAR, Section 13-5-23.

The applicant is requesting a variance of five (5) feet from the MHL of twenty-five (25) feet, pursuant to HAR, Chapter 13-5, Section 13-5-41(a), SINGLE FAMILY RESIDENCES; STANDARDS, which notes "the maximum height of the building shall not exceed twenty-five feet, measured from the highest point of the roof structure, down to the lower of the existing or finished grade at the lowest corner of the building." Staff recommends that the BLNR approve the request for a five-foot variance to meet Federal and County flood regulations.

The applicant will preserve the natural beauty and open space characteristics of the subject parcel around the SFR with appropriate building design and landscaping, thus staff is of the opinion that the proposed SFR will not result in substantial adverse impacts to natural resources. Staff notes the applicant submitted a proposed landscape plan, which will require prior approval. The Haena area is already developed as a community.

Staff comments that there is significant potential for fugitive dust to be generated during the proposed action, and may impact nearby residents. It is recommended that a dust control management plan be developed which identifies and addresses those activities that have a potential to generate fugitive dust. In addition, construction activities must comply with provisions of HAR, Section 11-60.1-33 on Fugitive Dust.

Staff notes the contractor should provide adequate means to control dust from road areas and during the various phases of construction activities, including but not limited to: 1) planning the different phases of construction, focusing on minimizing the amount of dust-generating materials and activities, centralizing material transfer points and on-site vehicular traffic routes, and locating potentially dusty equipment in areas of the least impact; 2) providing an adequate water source at the site prior to start-up of construction activities; 3) landscaping and rapid covering of bare areas, including slopes, starting from the initial grading phase; 4) controlling of dust from shoulders, project entrances, and access roads; 5) and providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities.

Staff notes that the May 15, 2006 acceptance letter indicated several unresolved issues regarding: 1) the proposed SFR's setback and its physical location in relation to the pending Shoreline Certification; 2) SFR's construction and compatibility with Chapter 13-5, HAR; 3) unauthorized fencing, and 4) dumping of green waste in the shoreline area (**Exhibit 6**).

Staff notes upon further review and analysis the SFR's compatibility with Chapter 13-5, HAR, is not an issue. The applicant has agreed to a deed restriction to prevent the applicants and/or future owners from constructing a separate stairwell to access the bedroom. Staff notes a standard term and condition, pursuant to HAR, Section 13-5-42 (5), is the prohibition of the SFR as a rental and/or for commercial uses. The issue of unauthorized fencing and green waste in the shoreline area has been addressed. The applicant made arrangements to clean up the site, and a HOAPS case processed.

On August 10, 2006, a FONSI was given for the proposed project however there were two unresolved issues: 1) the possible change to the location of the Browning's proposed SFR after the pending Shoreline Certification has been approved by the Chairperson of the BLNR; and 2) the construction of the proposed lava rock wall which would terminate at the certified shoreline. Staff also notes the Shoreline Setback was a third unresolved issue.

The shoreline setback issue was addressed in several correspondences (2/10/2005; 1/7/2006, 2/16/2006, 5/15/2006, and 7/12/2006) from the initial consultation phase and throughout the CDUA process (**Exhibit 7**).

The OCCL notes the shoreline area here is known to be subject to seasonal erosion, tsunami inundation, flooding and high surf and dwellings should be sited conservatively with respect to the shoreline setback. In order to determine an appropriate setback from the shoreline, the department required an historical shoreline analysis be carried out for the property.

On January 17, 2005, Edward K. Noda and Associates (EKNA) submitted a report regarding the subject historical shoreline analysis. The historical shoreline analysis utilized 8 aerial photographs dated from 1950 to 2002 for a time series of 52 years.

EKNA computed two independent erosion rates. The erosion rates were based on the digitized Shoreline Reference Features (SRF) found on historical aerial photographs. The first feature was the seaward edge of vegetation along the coastline. This feature, though historically used for erosion analysis, is no longer the industry standard for Hawaii. In recent decades, it has become apparent that manipulation of shoreline vegetation is an ongoing problem that effects shoreline certification, beach processes, and erosion analysis. *The current industry standard for computing shoreline erosion rate is the toe of the beach.*

The second erosion rate computed by EKNA was calculated based on using the trend of the toe of the beach as the SRF. The OCCL strongly recommends that all calculations for coastal setback be based on this erosion rate. *This is the accepted industry standard for modern erosion rate calculation in Hawaii.* The coastline from the Browning parcel to Haena also has sections of the coastal dune that are protected by authorized sand bags, and unauthorized vegetative debris. The Browning parcel resolved a Conservation District violation for the unauthorized placement of vegetative debris at the dune face through the HOAPS system. These forms of protection stabilize coastal vegetation, causing misrepresentation of erosion rates based on the seaward edge of vegetation.

Based on the erosion rate calculated using the toe of the beach, the OCCL proposed a 70-year multiplier for calculating the coastal setback. This produced a 130-foot coastal setback. Staff notes the Browning's conveyed to the OCCL their concerns with a 130 feet setback for the proposed SFR, and have asked that a further analysis be conducted.

After careful review and analysis of this particular area and subject parcel, the OCCL has determined that an approximately 106 foot set back from the shoreline would be adequate to protect and preserve the coastal resources. Furthermore, the setback maybe established from the most seaward face the building's foundation.

A 50 year multiplier would result in a setback of 106 ft

Based on a shoreline (TOE) erosion rate of -1.02'/yr
-1.00 ft/yr x (20% error and 10% sea level)= **-1.32 ft/yr adjusted erosion rate**

-1.32 ft/yr X 50 = 66 ft + 40 buffer = 106ft.

Staff notes in general there has been more development on Conservation District lands in the state. Our job is to conserve, protect and preserve the important natural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety and welfare. This includes the protection and preservation of coastal resources.

Staff further notes that the subject parcel is located in the Limited subzone² where the objective is to limit uses where natural conditions suggest constraints on human activities.

Staff notes that to approve the construction of the Browning's SFR with a setback of 61 feet back from the pending Certified Shoreline, in this area and on this parcel, will not in the long term protect them from future erosion hazards, protect the public from future damage(s), and to preserve the area's coastal resource.

Staff notes that once the pending Shoreline Certification has been approved by the Chairperson of the BLNR, and with the approval of the OCCL's recommended 106-foot setback, the SFR's present location will change on the subject parcel. Therefore, staff notes that the SFR's current design may need to be altered to conform to the 106-foot setback distance, subject parcel's topography, and/or Chapter 13-5, HAR rules and regulations.

Lastly, staff notes that the proposed dry stack lava rock wall should terminate 40 feet from the Certified Shoreline, and not terminate at the Certified Shoreline. Staff notes the construction of the rock wall is not a viable option. Erosion will eventually lead to the failure of the rock wall, which will result with rocks on the beach and which may increase the landowner's liability, and decrease the general public's safety. Staff notes there are other options to deter trespassers would

² The subzone shall encompass lands susceptible to floods and soil erosion, lands undergoing major erosion damage and requiring corrective attention by the county, state, or federal governments, and lands necessary for the protection of the health, safety, and welfare of the public by reason of the land's susceptibility to inundation by tsunamis, flooding, volcanic activity or landslides, or which have a general slope of forty percent or more.

be the construction of a wood and/or chain linked fence, and landscaping (thorny shrubs) alongside the right of way to deter trespassers. These alternatives will create less of an impact than a rock wall, and are better mitigation measures.

Therefore, staff recommends the following:

RECOMMENDATION:

That the Board of Land and Natural Resources APPROVE CDUA KA-3309 for the proposed Browning Single Family Residence, located in Haena District, Island of Kauai, subject to the following terms and conditions:

1. The applicant shall comply with all applicable statutes, ordinances, rules, and regulations of the federal, State and county governments, and the applicable parts of Section 13-5-42, HAR;
2. The applicant, its successors and assigns, shall indemnify and hold the State of Hawaii harmless from and against any loss, liability, claim or demand for property damage, personal injury or death arising out of any act or omission of the applicant, its successors, assigns, officers, employees, contractors and agents under this permit or relating to or connected with the granting of this permit;
3. The applicant shall comply with all applicable Department of Health administrative rules. Particular attention should be paid to Hawaii Administrative Rules (HAR), Section 11-60.1-33, "Fugitive Dust" and to Chapter 11-46, "Community Noise Control," and Chapter 11-54 National Pollutant Discharge Elimination System;
4. Before proceeding with any work authorized by the Board, the applicant shall submit four copies of the construction plans and specifications to the Chairperson or his authorized representative for approval for consistency with the conditions of the permit and the declarations set forth in the permit application. Three copies will be returned to the applicant. Plan approval by the Chairperson does not constitute approval required from other agencies;
5. Any work or construction to be done on the land shall be initiated within one year of the approval of such use, in accordance with construction plans that have been approved by the Department; further, all work and construction must be completed within three years of the approval;
6. The applicant shall notify the Office of Conservation and Coastal Lands in writing prior to the initiation, and upon completion, of the project;
7. Where any interference, nuisance, or harm may be caused, or hazard established by the use, the applicant shall be required to take measures to minimize or eliminate the interference, nuisance, harm, or hazard;

8. The applicant will use Best Management Practices for the proposed project;
9. The applicant will give preference towards using native plants for the remaining landscape work, and that prior to any construction the applicant will submit a landscape plan for the Office of Conservation and Coastal Land's approval;
10. The applicant understands and agrees that this permit does not convey any vested rights or exclusive privilege;
11. In issuing this permit, the Department and Board have relied on the information and data that the applicant has provided in connection with this permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete or inaccurate, this permit may be modified, suspended or revoked, in whole or in part, and/or the Department may, in addition, institute appropriate legal proceedings;
12. In the event that unrecorded historic remains (i.e., artifacts, or human skeletal remains) are inadvertently uncovered during construction or operations, all work shall cease in the vicinity and the applicant shall immediately contact the State Historic Preservation Division;
13. The applicant shall provide documentation (i.e. book/page document number) that this approval has been placed in recordable form as a part of the deed instrument, prior to submission for approval of subsequent construction plans;
14. That the applicant shall execute a waiver and indemnity prior to construction plan approval that is satisfactory to the Department;
15. That the Single Family Dwelling shall not be used for rentals or any other commercial purposes unless approved by the Board;
16. That the applicant will record a deed restriction to prevent the applicants and/or future owners from constructing a separate stairwell to access the bedroom.
17. That a qualified archeological monitor shall be present during all ground altering activities conducted in the project area in order to document any historic properties, which may be encountered during the proposed undertaking, and to provide mitigation measures as necessary. An acceptable archeological monitoring plan³ will need to be submitted to the HPD for review prior to the commencement of any ground-altering

³ The archeological monitoring plan must contain the following: 1) kinds of remains are anticipated and where in the construction area the remains are likely to be found; 2) how the remains and deposits will be documented; 3) how the expected types of remains will be treated; 4) the archeologists conducting the monitoring has the authority to halt the construction in the immediate area of the find in order to carry out the plan; 5) a coordination meeting between the archeologist and construction crew is scheduled, so that the construction team is aware of the plan; 6) what laboratory work will be done on remains that are collected; 7) a schedule of report preparation; 8) details concerning the archiving of any collections that are made; and 9) an acceptable report documenting the findings of the monitoring activities shall be submitted to the HPD for review following the completion of the proposed undertaking.


activities. Lastly, HPD will be notified upon the on-set and completion of the proposed undertaking;

18. That the proposed Browning SFR will have a 106 footset back from the Certified Shoreline to protect and preserve the coastal resources. The setback maybe established from the most seaward face the building's foundation;
19. That the proposed dry stack lava rock wall should terminate 40 feet from the Certified Shoreline, and not terminate at the Certified Shoreline;
20. Other terms and conditions as may be prescribed by the Chairperson; and
19. That failure to comply with any of these conditions may render this Conservation District Use Permit null and void.

Respectfully Submitted,


Dawn T. Hegger
Staff Planner

By:



PETER T. YOUNG, Chairperson
Board of Land and Natural Resources

KAUAI

Naalehu
Hanalei
Kalaheo
Moloaa
Anahola
Kapaa
Wauwae
Nawiliwili Bay
Hawaii Bay
Poipu
Kokoa
Kalapana
Port Allen
Hanapepe
Waimea
Kekaha
Mana
Milihou
Koloa

Mt. Waialeale

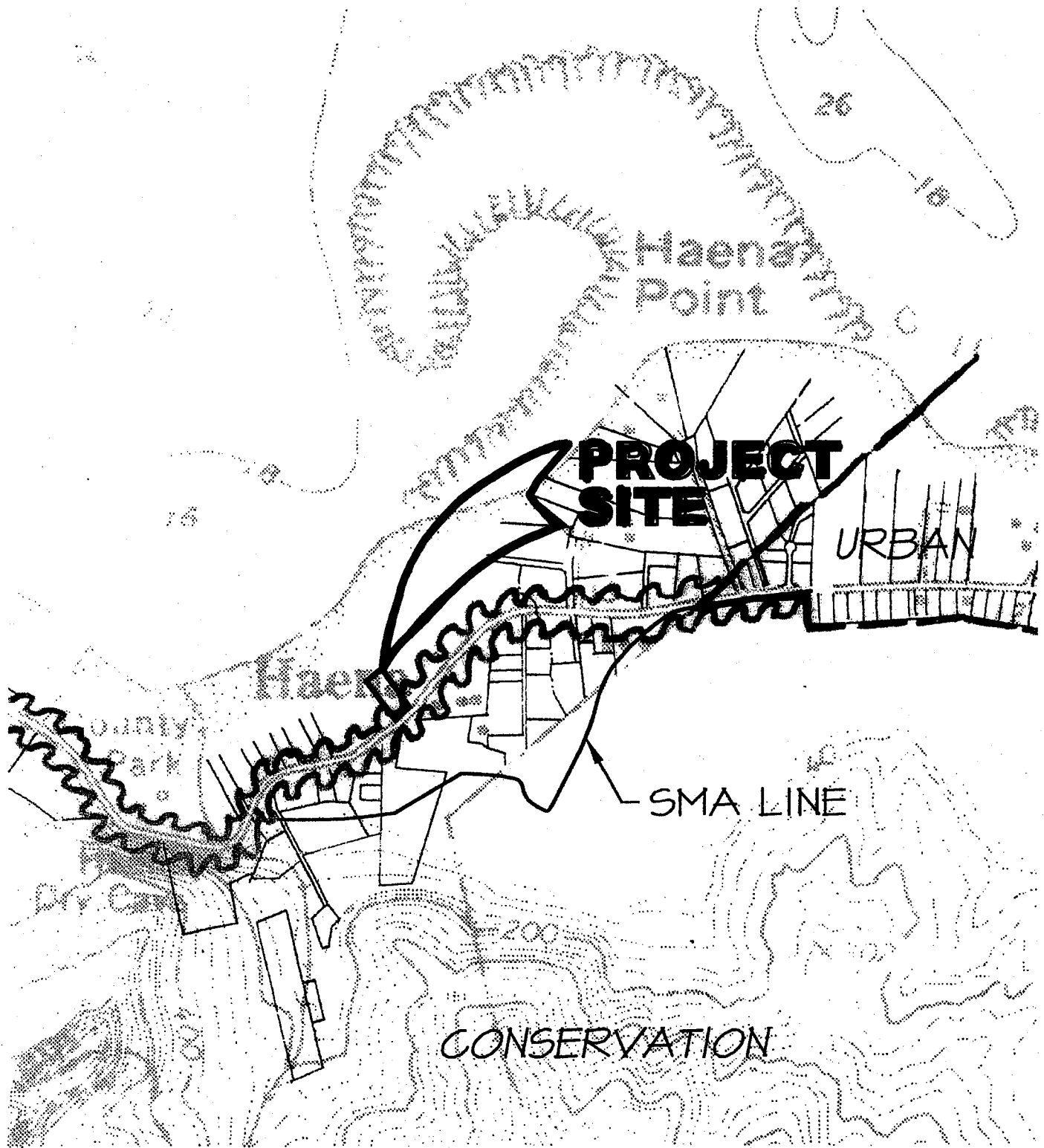
LEGEND
 --- CONSERVATION DISTRICT
 JEEP ROAD
 - - - ROADS, HIGHWAYS
 ... TRAIL

N
E
S
W

Subject Parcel TMK: (4) 59-006:029
A CRP

Subject Parcel Trk: (4) 5-9-005: 029
Browning Subject Parcel SFR

EXHIBIT 1



COUNTY ZONING MAP

BROWNING SINGLE FAMILY RESIDENCE
HAENA, KAUAI, HAWAII

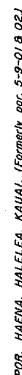
T.M.K. (4) 5-9-05:29

SHEET

5

EXHIBIT 5

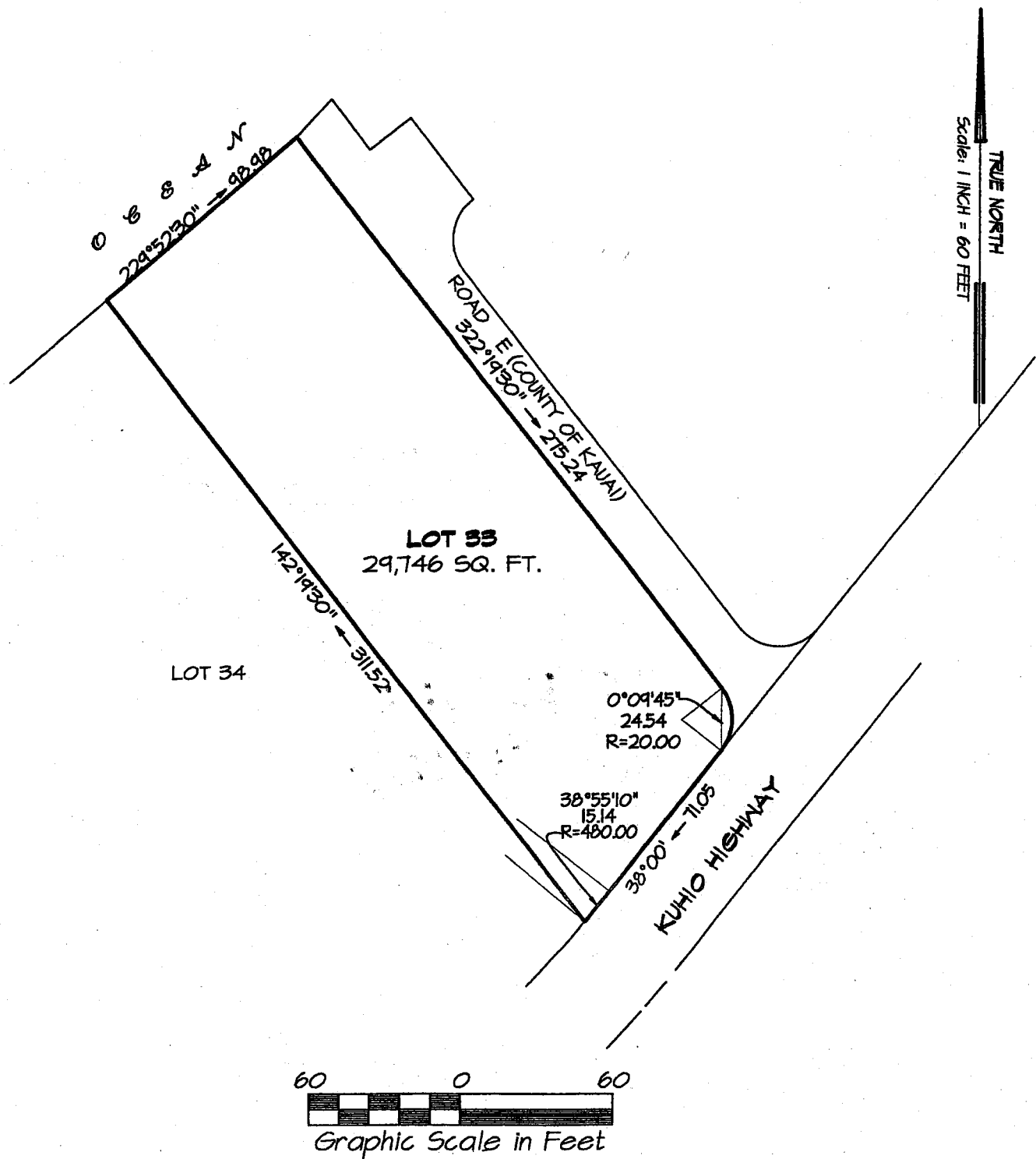
EXHIBIT 2





Wagner Engineering Service Inc.

P.O. Box 851 Hanalei, HI 96714 (808) 820-7256



PLOT PLAN

BROWNING SINGLE FAMILY RESIDENCE

HAENA, KAUAI, HAWAII

T.M.K. (4) 5-9-05:29

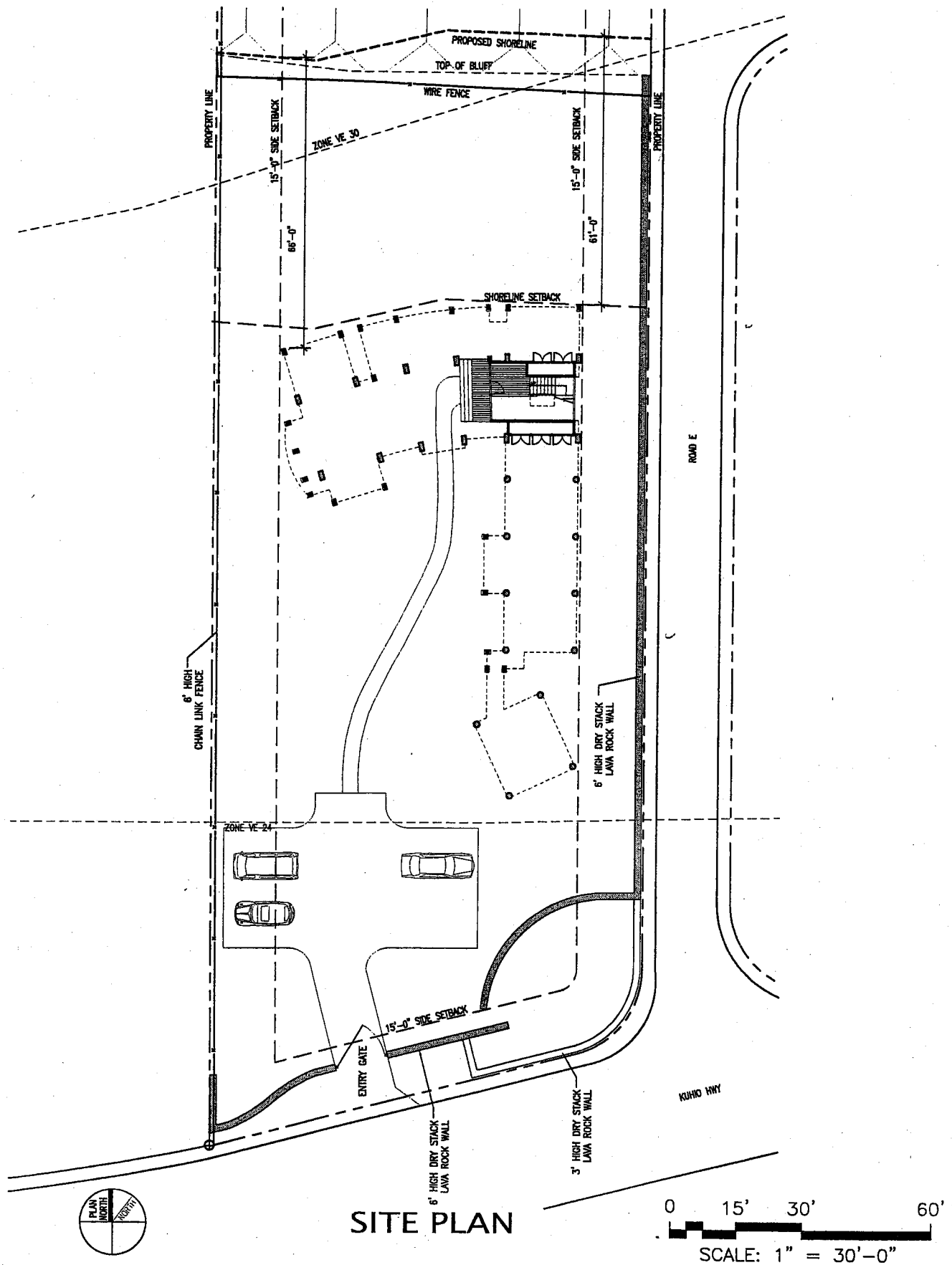
SHEET

6

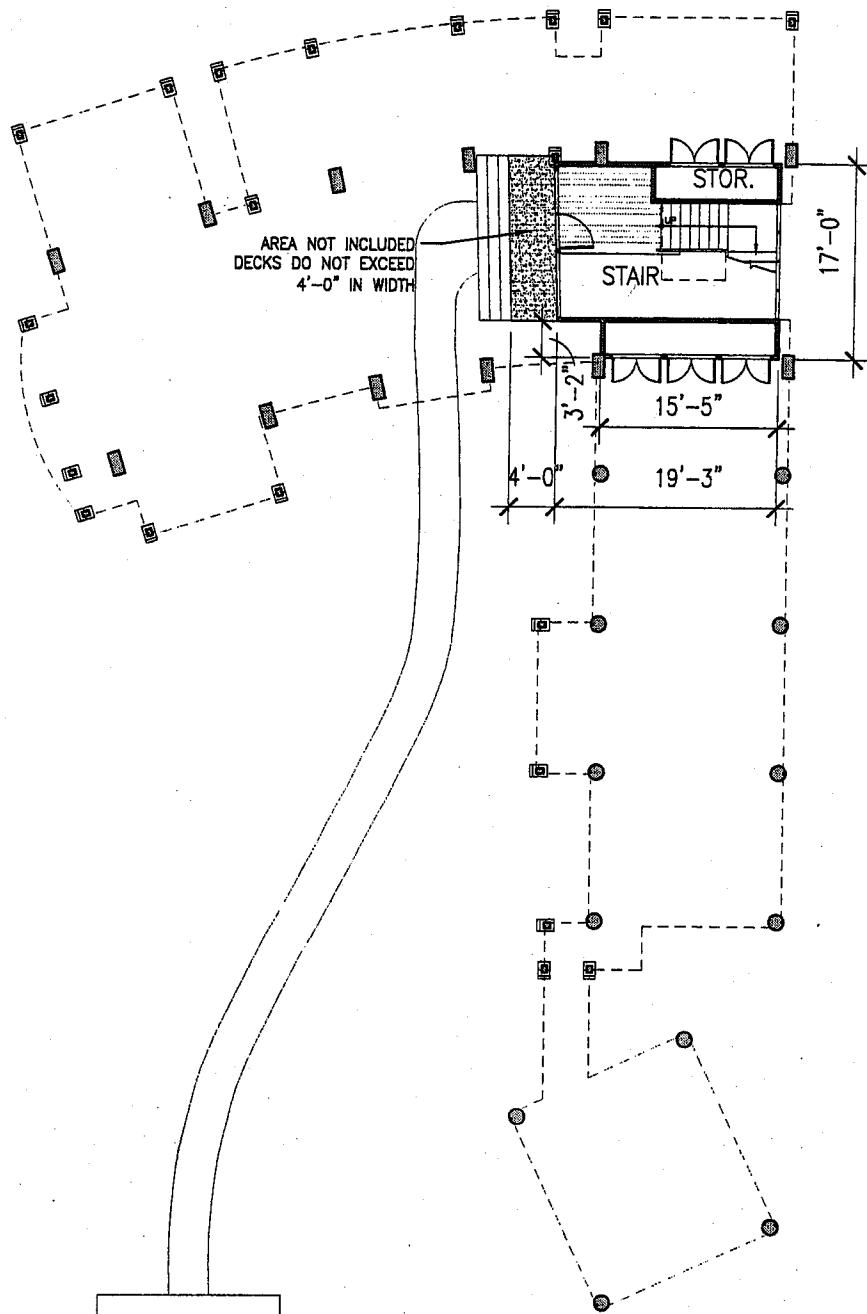
EXHIBIT 6

EXHIBIT 2

EXHIBIT 3



SITE PLAN



DEVELOPMENT AREA GARDEN LEVEL: 319 Sq Ft.

NOTE: SQUARE FOOTAGE CALCULATIONS ARE
MADE FROM CAD DRAWINGS AND ARE EXACT.



GARDEN LEVEL PLAN

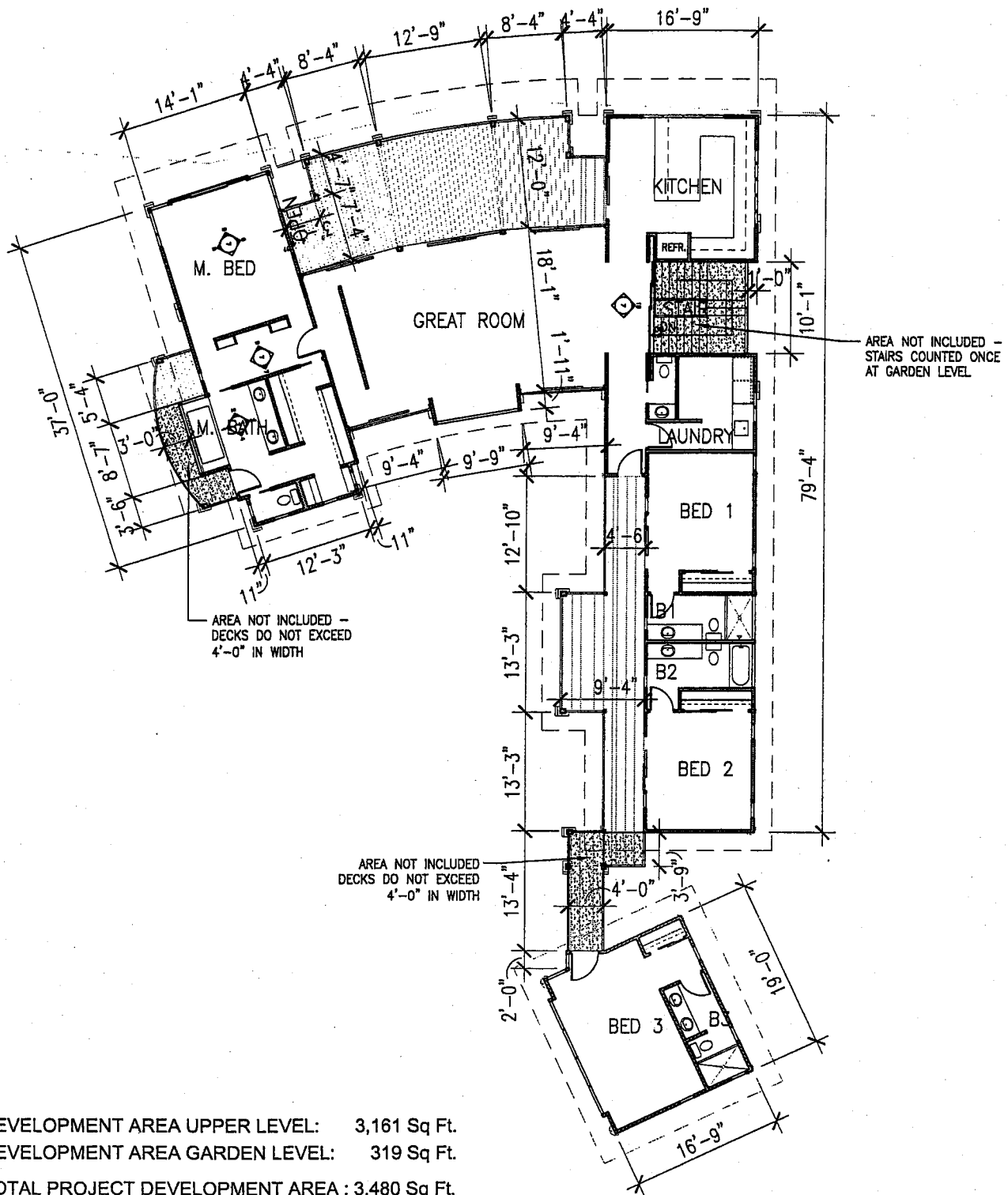
0 8' 16' 32'

SCALE: 1/16" = 1'-0"

De Jesus
ARCHITECTURE
& DESIGN

BROWNING SINGLE FAMILY RESIDENCE
HAENA, KAUAI, HAWAII
TMK: (4) 5-9-05, 29

EXHIBIT 4



DEVELOPMENT AREA UPPER LEVEL: 3,161 Sq Ft.
 DEVELOPMENT AREA GARDEN LEVEL: 319 Sq Ft.
 TOTAL PROJECT DEVELOPMENT AREA : 3,480 Sq Ft.

NOTE: SQUARE FOOTAGE CALCULATIONS ARE
 MADE FROM CAD DRAWINGS AND ARE EXACT.



UPPER LEVEL PLAN

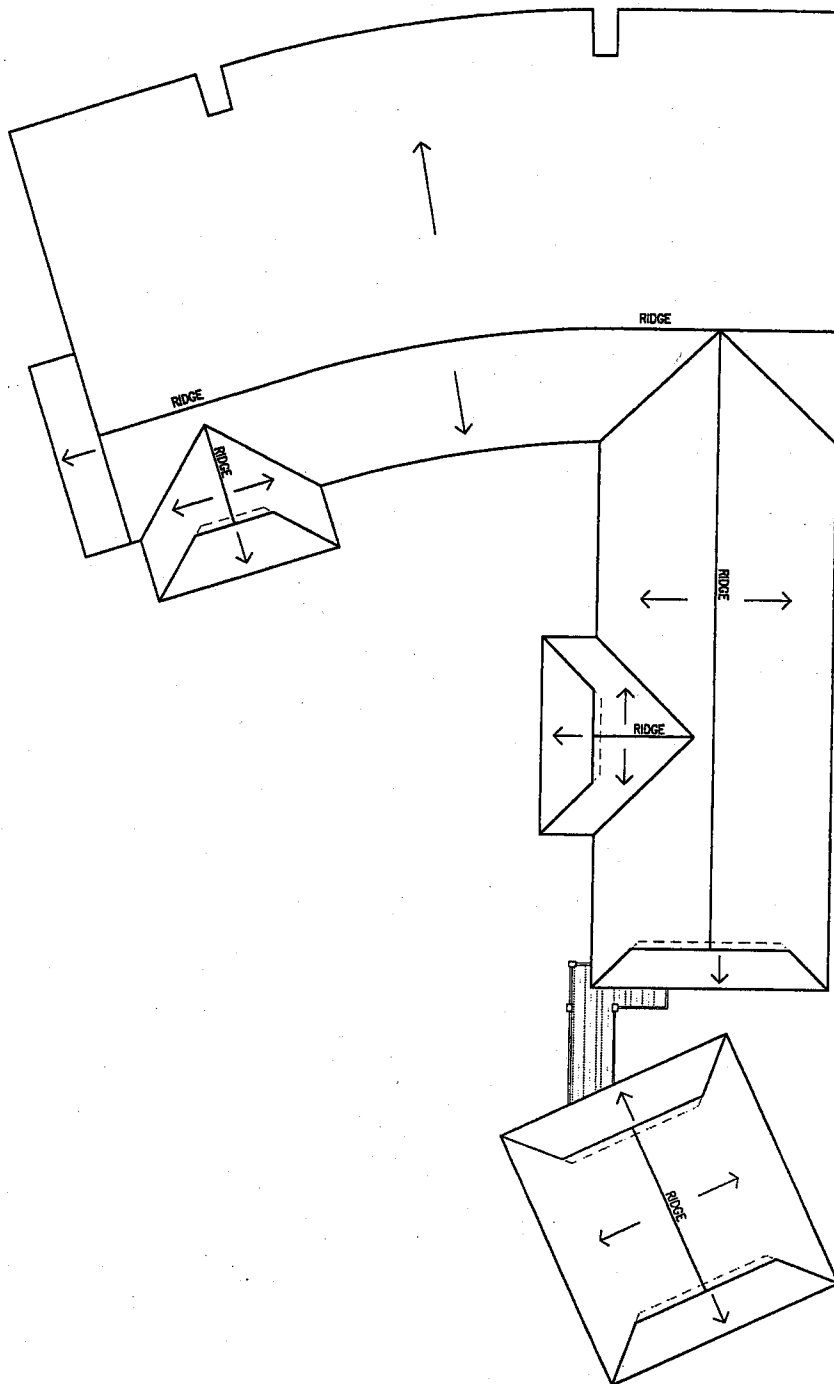
BROWNING SINGLE FAMILY RESIDENCE

HAENA, KAUAI, HAWAII

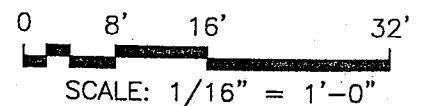
TMK: (4) 5-9-05, 29

De Jesus
 ARCHITECTURE
 & DESIGN

EXHIBIT 4



ROOF PLAN



De Jesus
ARCHITECTURE
& DESIGN

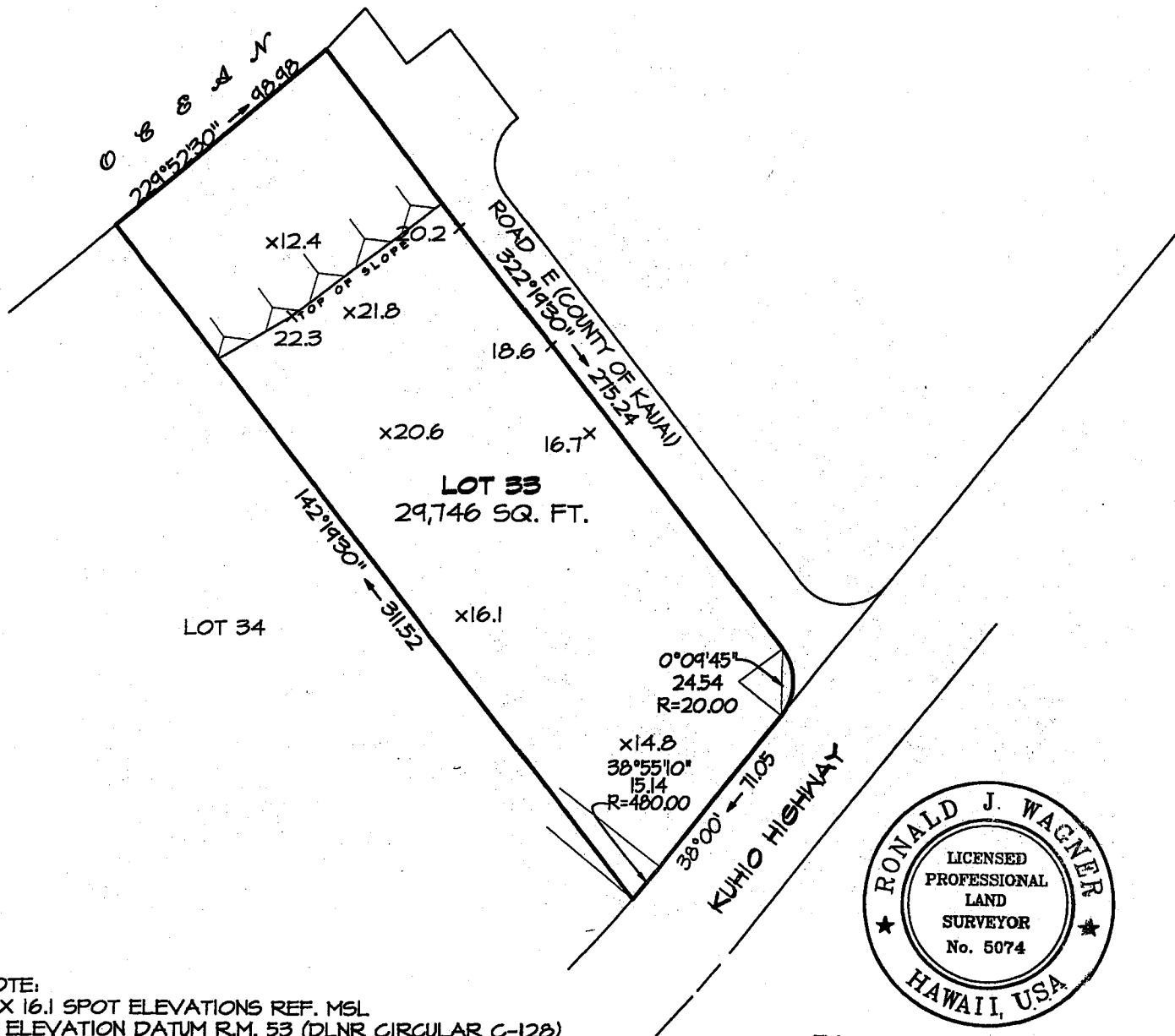
BROWNING SINGLE FAMILY RESIDENCE
HAENA, KAUAI, HAWAII
TMK: (4) 5-9-05, 29

EXHIBIT **4**

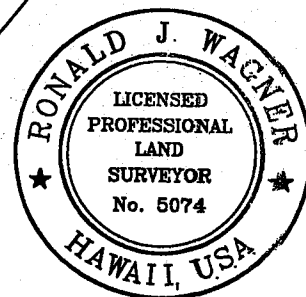
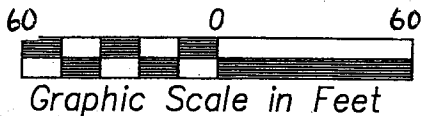


Wagner Engineering Services, Inc.

P.O. Box 851 Hanalei, HI 96714 (808) 826-7256



NOTE:
1. X 16.1 SPOT ELEVATIONS REF. MSL
2. ELEVATION DATUM R.M. 53 (DLNR CIRCULAR C-128)
"X" CUT IN CONC. SLAB, HAENA BEACH PARK
ELEVATION = 16.41'

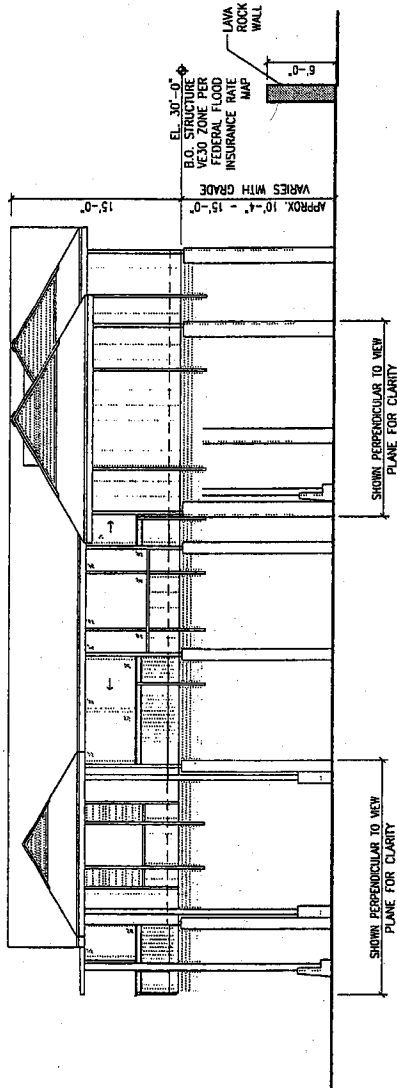


This map was prepared by me
or under my direct supervision.

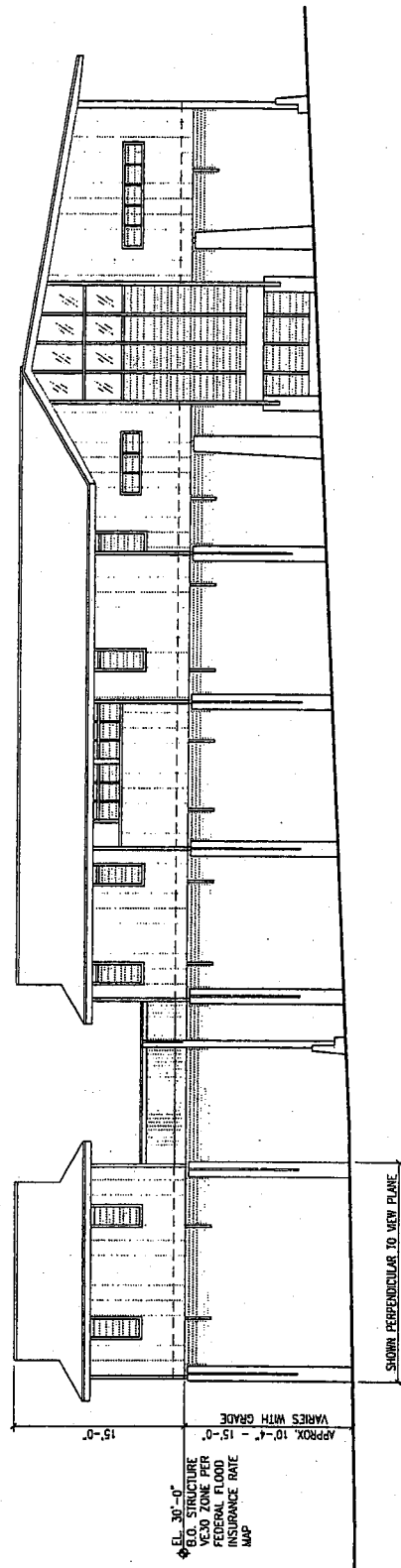
Ronald J. Wagner
RONALD J. WAGNER
Licensed Professional Land Surveyor
Certificate Number 5074.

ELEVATION CERTIFICATE

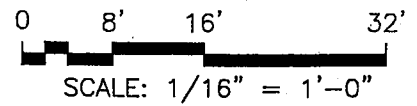
BROWNING SINGLE FAMILY RESIDENCE
HAENA, KAUAI, HAWAII
T.M.K. (4) 5-9-05:29

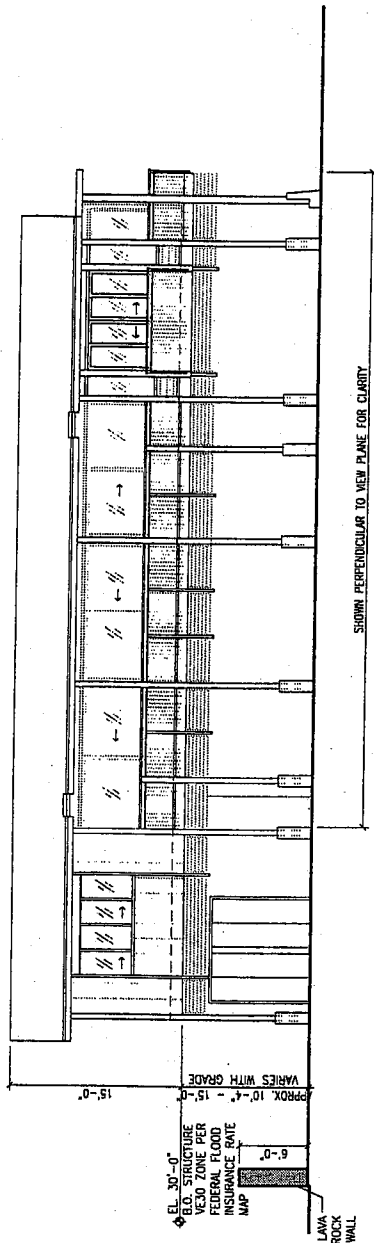


SOUTH ELEVATION

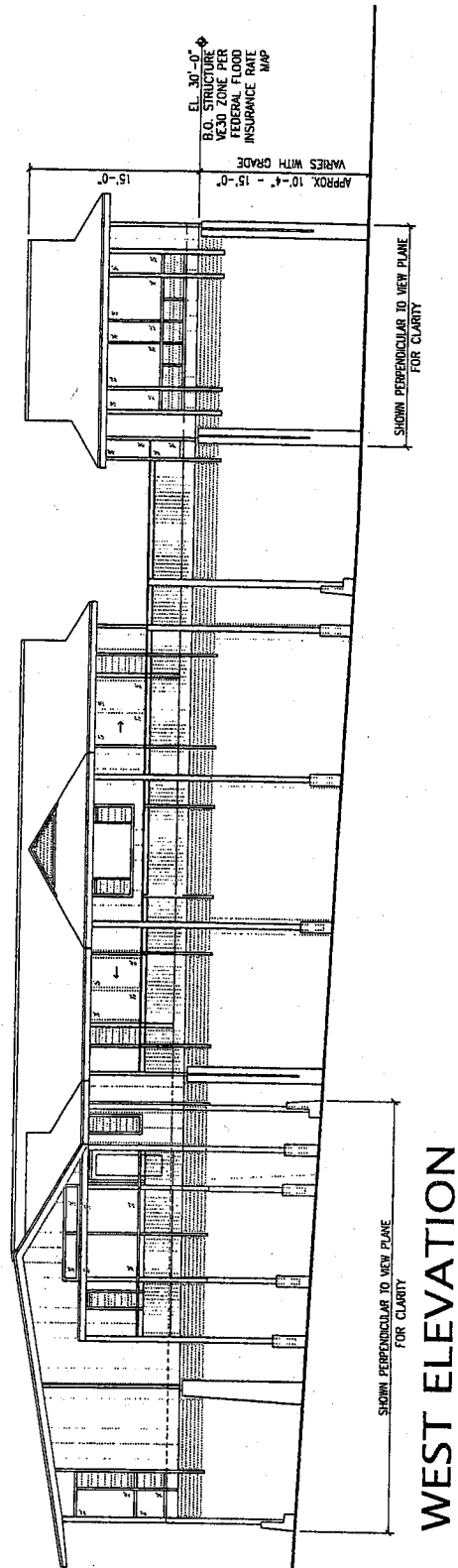


EAST ELEVATION

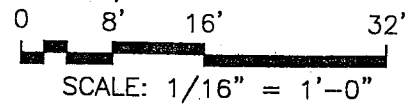


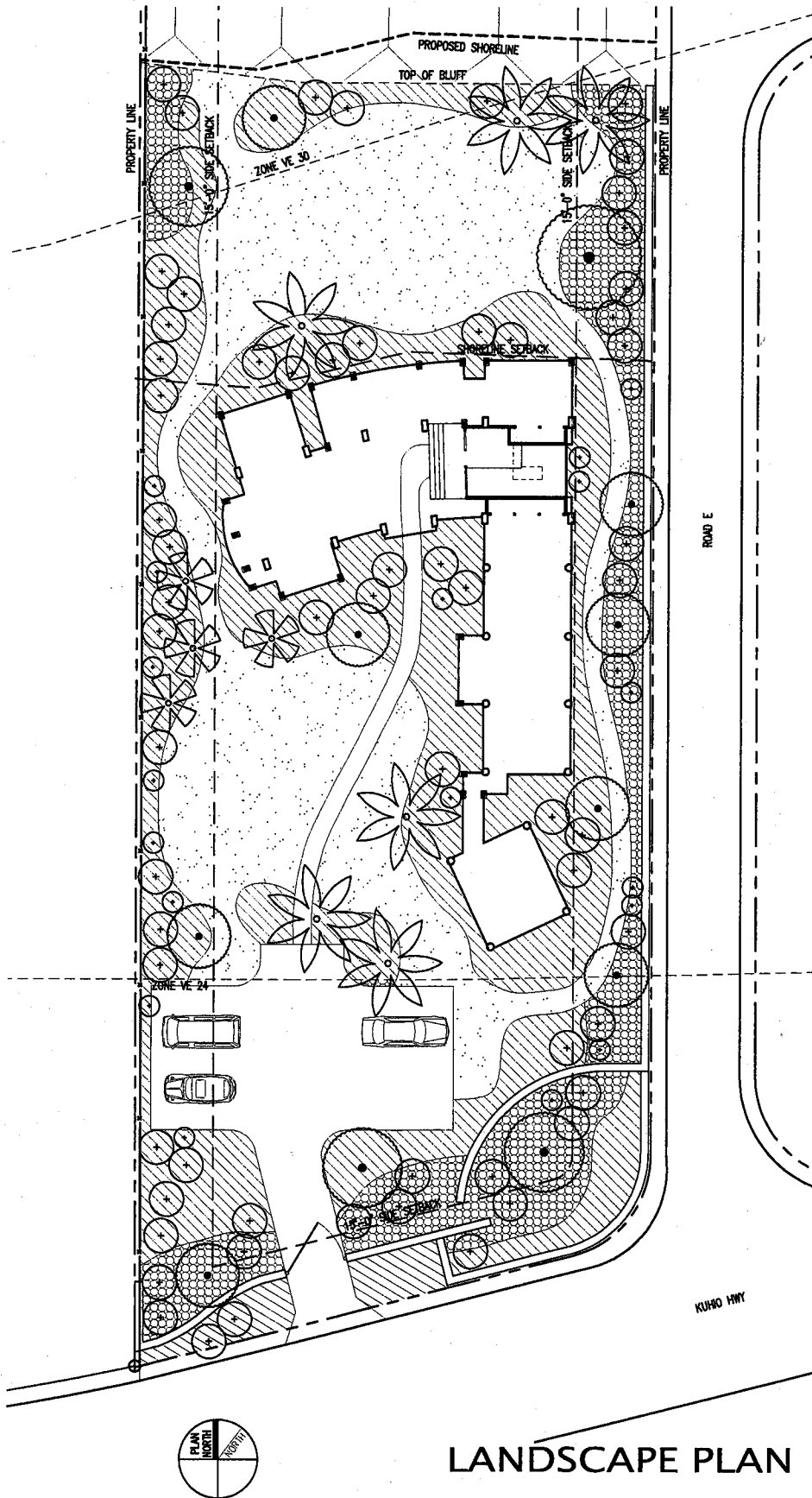


NORTH ELEVATION



WEST ELEVATION

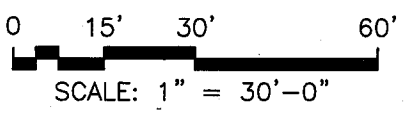




REPRESENTATIVE SAMPLING OF NATIVE, POLYNESIAN INTRODUCED AND COMMONLY USED LANDSCAPE SPECIES:

<p>TREES</p> <p>KOU TREE KAWAHI TREE FALSE KAWAHI HALA BEACH HELITROPE PLUMERIA PUA KENIKENI YLANG YLANG TONGA TABOO ROYAL POINCIANA PAK LAN</p>	<p>PALMS</p> <p>LOULU (PRITCHARDIA) MANILA FOX TAIL COCONUT</p>	<p>SHRUBS</p> <p>NAUPAKA NAIOPAPA SPIDER LILY TIARE GARDENIA TARO (APE) RED & GREEN TI CROTON MONSTERA GINGER BOUGAINVILLEA</p>	<p>SMALL SHRUBS & PALMS</p> <p>POHINAHINA AKOKO MA'O 'AKIA GARDENIA XANADU PHILODENDRON BAGONIA IMPATIENS RAFUS PALM PHOENIX PALM</p>	<p>GRASS & GROUND COVERS</p> <p>SEASHORE PASPALUM LAWA'E FERN MONDO GRASS LARIOPHI HEMIGRAPHIS OTACANTHUS DIANTHUS</p>
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EXISTING AREAS OF
PREDOMINANTLY
INTRODUCED AND
INVASIVE SPECIES.
PHASED REMOVAL AND
PRUNING OF THESE
INVASIVE SPECIES TO
MAKE WAY FOR NATIVE
AND PREFERRED
LANDSCAPE SPECIES
OVER TIME.



LANDSCAPE PLAN

BROWNING SINGLE FAMILY RESIDENCE

HAENA, KAUAI, HAWAII

TMK: (4) 5-9-05, 29

De Jesus
ARCHITECTURE
& DESIGN

EXHIBIT

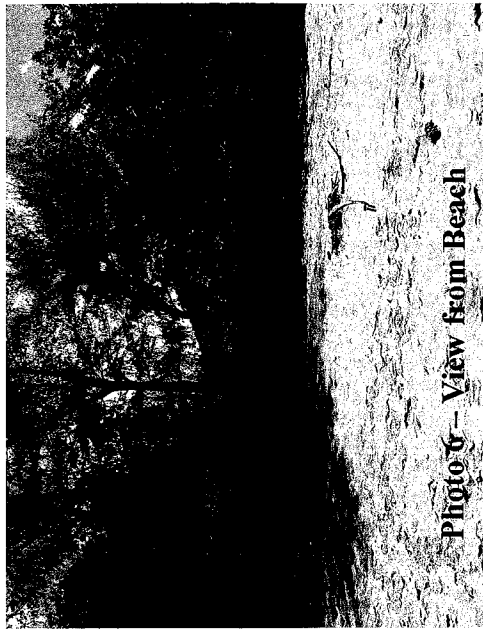
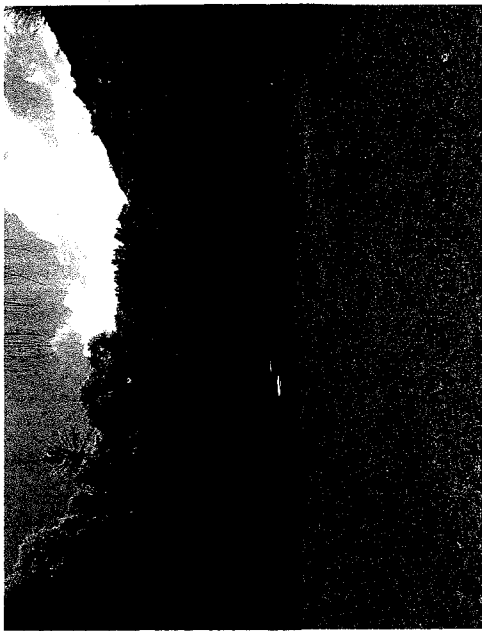


Photo 6 - View from Beach

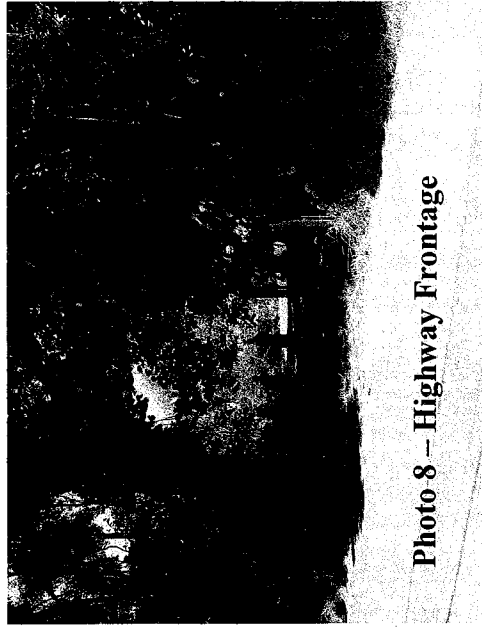
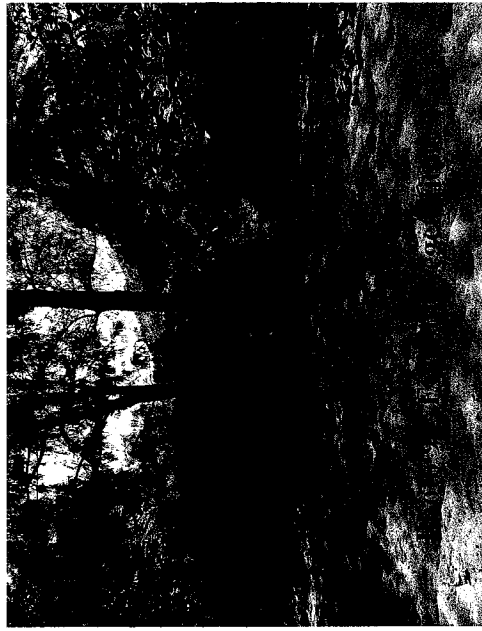
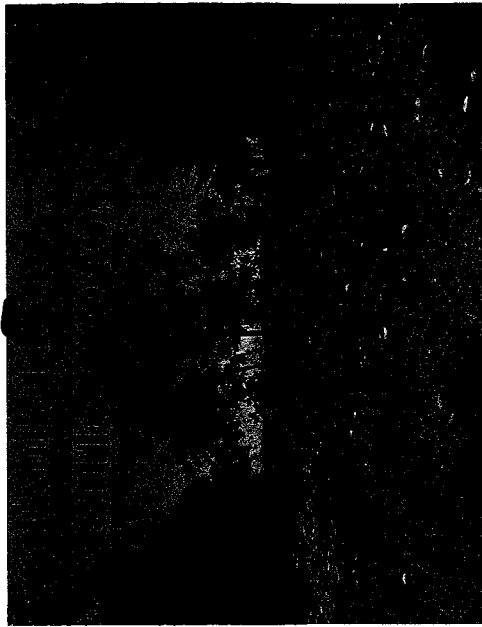
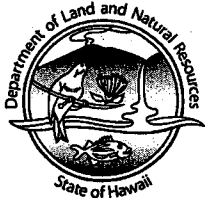


Photo 8 - Highway Frontage



LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
DEPUTY DIRECTOR - LAND

DEAN NAKANO
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

REF:OCCL:DH

FILE NO: Cдуа KA-3309

JUL 12 2006

Acceptance Date: May 15, 2006
180-Day Exp. Date: November 11, 2006

Ben Welborn
Landmark Consulting Services, Inc.
P.O. Box 915
Hanalei, Hawaii 96714

Dear Mr. Welborn:

SUBJECT: Conservation District Use Application (CDUA) KA-3309 for the Browning Single Family Residence (SFR), Haena District, Island of Kauai, TMK: (4) 5-9-005:029

This letter is regarding the processing of CDUA KA-3309. The public and agency comment period on your client's application has closed. Attached to this letter are copies of the comments received by the Office of Conservation and Coastal Lands (OCCL) regarding your CDUA. The final copy of your CDUA needs to include the responses to the queries raised in these letters. These responses can be attached to the end of the final CDUA document. Please send 6 (six) copies of the final EA to the OCCL by August 9, 2006, so it can be published the OEQC's August 23, 2006 Environmental Notice.

The OCCL reiterates our concern over the shoreline setback. As noted, the OCCL is committed to protection and preservation of coastal resources. You CDUA page # 5 notes that the applicant is proposing to set the residence 61 feet back from the pending certified shoreline. However, based on our analysis of the EKNA study, this setback is not sufficient to protect the homeowner from future erosion hazards. A larger buffer is also required between any structures and the shoreline to protect the public beach from future damages.

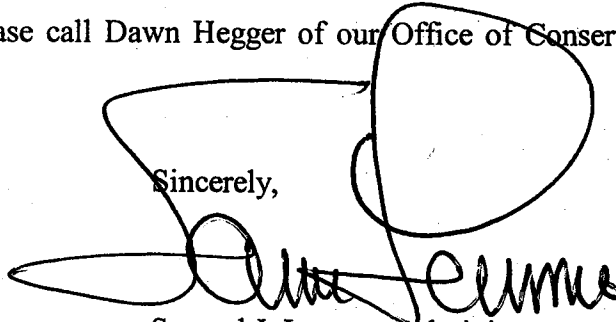
Lastly, the OCCL that the Department or BLNR did not approve a fence on the property. Your email noted that the "seaward section of the fence running parallel to Roadway "E" which extended beyond the shoreline has been removed. However, the OCCL notes there is still a fence on the subject parcel. Therefore, we intend to process the matter through our Hawaii Officer Administrative Penalty System (HOAPS), which will involve an administrative fine of \$500.00.

EXHIBIT 6

The OCCL notes to please provide a list and Site Plan of the area to be landscaped with native flora. After the OCCL receives the final version of your CDUA and Environmental Assessment with all the necessary amendments, staff will submit your CDUA to the Board of Land and Natural Resources for their consideration. Early submittal of your documents will expedite the review process.

Should you have questions, please call Dawn Hegger of our Office of Conservation and Coastal Lands staff at 587-0380.

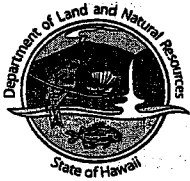
Sincerely,

A large, stylized handwritten signature in black ink, appearing to read 'Samuel J. Lemmo', is written over the word 'Sincerely,'.

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

c: KDLO
County of Kauai Planning Department

LINDA LINGLE
GOVERNOR OF HAWAII



**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES**

Office of Conservation and Coastal Lands
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

YVONNE Y. IZU
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

OCCL:DE

Correspondence File No.: KA-05-168

February 10, 2005

Mr. Ben Welborn
Landmark Consulting Services
P.O. Box 915
Hanalei, HI 96714

SUBJECT: Browning Shoreline Setback, Haena, Kauai (TMK: (4) 5-9-05:029)

Pertaining to the construction of a single family residence at Haena, Kauai. The shoreline area here is known to be subject to seasonal erosion, tsunami inundation, flooding and high surf and dwellings should be sited conservatively with respect to the shoreline setback. In order to determine an appropriate setback from the shoreline, the Department required an historical shoreline analysis be carried out for the property. We are in receipt of the January 17, 2005 report from Edward K. Noda and Associates (EKNA) regarding the subject historical shoreline analysis.

EKNA prepared a historical shoreline analysis utilizing 8 aerial photographs dated from 1950 to 2002 for a time series of 52 years. A recent guidebook¹ on coastal development offers guidelines on determining the historical erosion rate. The historical shoreline change analysis prepared by EKNA meets these guidelines as well as our requirements for establishing the historical shoreline behavior for the subject property.

EKNA supplied data on the historical erosion rate at the property based on analysis of the position of the vegetation line and the beach line (toe or step crest) in aerial photographs. EKNA calculated the erosion trend for two reaches for this property; the immediate 200 linear feet fronting the property as well as a 2500 foot reach extending from Manoa Stream to the unnamed stream 800 feet to the north. The dual reaches provide an opportunity to quantify the along shore variability of the shoreline and

¹ Hawaii's Coastal Hazard Mitigation Guidebook. In Press. Dennis Hwang for the State of Hawaii, Department of Land and Natural Resources, The Coastal Zone Management Program, University of Hawaii Sea Grant Program, and the Pacific Services Center- NOAA.

reduces the error associated with tracking discrete transects at set intervals. Both reaches are consistent and suggest an overall erosion trend for the area.

In addition to tracking the shoreline movement, EKNA tracked the movement of the vegetation line for both reaches. Quantifying the trend of the vegetation line is useful in understanding the long-term changes of the overall beach width changes as a function of both shoreline erosion landward and migration of the vegetation. EKNA has determined that the trend of the vegetation line for the immediate property (200 linear feet) is erosional (landward at -0.22 ft/yr) while the 2500 foot reach for the area reveals the vegetation line is accretionary (seaward at +0.39 ft/yr). The discrepancy between the two vegetation line trends may be a function of widespread landscaping in the area or localized coastal processes that prevent the landward migration of vegetation at the subject site.

For the purpose of establishing setback the use of the toe or waterline is utilized since it is thought to be a better indicator of long-term shoreline change that cannot be manipulated as the vegetation can be. Using the toe or beach line as the Shore Reference Feature (SRF), and based on the information provided **we have calculated the shoreline set back at ~130 feet.** The setback was calculated as follows:

Table 1. DLNR Shoreline Setback Calculations:

Annual Erosion Rate (ft/yr) Rounded off to -1.0	-1.0	Ave Rate of beach Line
Error Adjustment (20%)	0.20	+ error
Sea level adjustment (10%)	0.12	+ SL adjustment
Final Adjusted erosion rate (ft /yr)	1.32	= adjusted rate
Adjusted rate X lifespan (70 years) (ft)	92.4 ft	Initial setback
Storm Event Buffer (20 feet)	20	+ storm
Design/Safety Buffer (20 feet)	20	+ safety
Erosion Zone setback (Feet)	132.4	= setback

Table 2 – Example Table of Erosion Rates Based on Structure Life Expectancy

Erosion Rate ft./yr.	Adjusted Rate for Errors (20%)	Adjusted Rate for Errors and Accel. Sea Level Rise (20%) X (10%)	Storm Event	Safety/Design Buffer	Erosion Zone 70-year Life of Structure	Erosion Zone 100-year Life of Structure
0	0.12*	0.13*	20	20	49*	53*
1	0.12	0.13	20	20	49	53
2	0.24	0.26	20	20	58	66
3	0.36	0.39	20	20	67	79
4	0.48	0.52	20	20	76	92
5	0.60	0.66	20	20	86	106
1.0	1.20	1.32	20	20	132	172
1.5	1.80	1.98	20	20	179	238
2.0	2.40	2.64	20	20	225	304

Table 2 describes the approach the Guidebook¹ utilizes to achieve a shoreline setback for a given erosion rate. This method accounts for calculation error, sea level rise, storm buffer and a design buffer and would provide a safe setback for an estimate 70 year lifespan for the structure. Similar formulas have been used at the Maui County Planning Department² as well as being widely used in several mainland states.

The recommended shoreline setback is thought to be a conservative and proactive planning measure to protect the applicant from developing within a known coastal hazard zone. Please call me at (808) 587-0381 if you have any questions regarding the shoreline setback for this parcel.

Sincerely,


Sam Lemmo, Administrator
Office of Conservation and Coastal Lands

Cc: Chairperson's Office
Kauai Board Member
Kauai Land Agent
Kauai County Planning Department

² Maui County Shoreline setbacks are based on a 50 year structural lifespan plus 20 foot storm buffer.
See <http://www.co.maui.hi.us/departments/Planning/pdf/mpcshoreline.pdf>



EKNA Services, Inc.

Engineers
and
Environmental
Consultants

Engineering
Planning
Surveys
Computer
Modeling

615 Piikoi Street
Suite 300
Honolulu, Hawaii
96814-3139

Telephone:
(808) 591-8553
Facsimile:
(808) 593-8551

CN 2480-01F#

January 7, 2006

Landmark Consulting Services, Inc.

P.O. Box 915

Hanalei, Hawaii 96714

Attn: Mr. Ben Welborn

Subject: Shoreline Setback Determination
Browning Property TMK:(4)5-9-05:029
Haena, Kauai

Dear Mr. Welborn:

In response to your request, this letter provides a professional opinion regarding an appropriate shoreline setback distance for the subject parcel. The opinion is based on the analysis of historical shoreline changes that EKNA Services, Inc. recently performed for the shoreline area in the vicinity of the subject property, the guidelines contained in "Hawaii's Coastal Hazard Mitigation Guidebook"¹ (*Guidebook*), and our coastal engineering expertise.

1. The vegetation line as certified by the Board of Land and Natural Resources should be used to establish the setback, rather than the beach toe line as suggested by the DLNR. For this coastal reach, the shoreline escarpment or vegetation line is an unambiguous indicator of long-term shoreline change, whereas the beach toe line is highly variable. Based on our analysis of historical shoreline change, the average annual erosion rate for the location of the subject property is 0.22 feet/year. Using the recommended adjustment for error (20%) and accelerated sea level rise (10%) from the *Guidebook*, the adjusted erosion rate is 0.29 feet/year.
2. For a 70-year life, the erosion zone is $(70 \times 0.29) = 20.3$ feet. For a 50-year life, the erosion zone is $(50 \times 0.29) = 14.5$ feet. The *Guidebook* recommends using a 70-year life plus a storm event buffer of 20 feet, plus a safety/design buffer of 20 feet, resulting in a total setback of 60.3 feet. Using a 70-year life plus a 40-foot buffer (which is equivalent to adding an estimated 70 years of lifespan to the prevailing 40-foot standard setback) is conservative, especially if the dwelling is designed and constructed to be relocatable, and

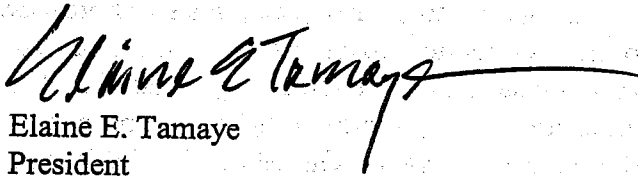
¹Hawaii Coastal Hazard Mitigation Guidebook, prepared for the Office of Conservation & Coastal Lands, Department of Land and Natural Resources, Coastal Zone Management Program, Office of Planning, State of Hawaii, University of Hawaii Sea Grant College Program and the Pacific Services Center - NOAA, prepared by Dennis J. Hwang, January 2005.

provided that there is sufficient space on the property to relocate the dwelling. The subject property satisfies both criteria.

3. For shorelines where the historical changes have not been uniformly erosional or accretional, it is recommended that the minimum setback should not be less than the erosion zone for a 50-year life plus the maximum cycle of shoreline movement from the aerial photo analysis. The maximum cycle accounts for relatively short-term fluctuations in the movement of the shoreline, which is "averaged out" when calculating the long-term annual rate. For the subject property, the maximum cycle of shoreline movement has been about 26 feet, resulting in a minimum recommended setback of (14.5 feet + 26 feet) = 40 feet. Because this setback is smaller than the 60 feet based on the *Guidebook*, it is recommended that the more conservative setback of 60 feet be considered for this property.

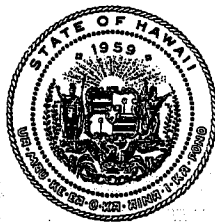
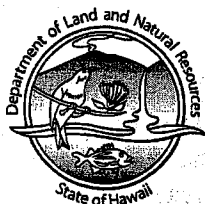
Based on the above, it is my opinion that a reasonably protective shoreline setback for the subject property is 60 feet. Please do not hesitate to contact me if you have any questions concerning the above.

Very truly yours,


Elaine E. Tamaye
President

cc: Randy Vitousek
Cades Schutte LLC
75-170 Hualalai Road, Suite #303B
Kailua Kona, HI 96740

LINDA LINGLE
GOVERNOR OF HAWAII



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DEPARTMENT OF LAND AND NATURAL RESOURCES
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CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

REF: OCCL:CC

CDUA: KA-3294

Ben Welborn
Landmark Consulting Services
PO Box 915
Hanalei, HI 96714

FEB 16 2006

Dear Mr. Welborn,

SUBJECT: Conservation District Use Application (CDUA) KA-3294 for construction of a Single-Family Residence (SFR), Haena, Island of Kauai, Subject Parcel TMK: (4) 5-9-005:029

The Department of Land and Natural Resources (the Department) is in receipt of CDUA KA-3294, filed February 6, 2006, for the owners to construct a SFR in the Conservation District in Haena on Kauai, Subject Parcel TMK: (4) 5-9-005:029.

Departmental records indicate that the subject parcel is located in the State Land Use (SLU) Conservation District, Limited Subzone. The Office of Conservation and Coastal Lands (OCCL) is writing to inform you the Department is bound by statute to accept or reject each application within 30 days of receipt. The OCCL has reviewed your CDUA and considers it incomplete.

The OCCL has notified you by letter, Correspondence File No. KA-05-168, of the correct erosion rate, as derived in the EKNA study, to use when calculating the shoreline setback area. The OCCL also included a worksheet showing all calculations, based on your study, for producing the correct shoreline setback area. Following is a section from the letter.

In addition to tracking the shoreline movement, EKNA tracked the movement of the vegetation line for both reaches. Quantifying the trend of the vegetation line is useful in understanding the long-term changes of the overall beach width changes as a function of both shoreline erosion landward and migration of the vegetation. EKNA has determined that the trend of the vegetation line for the immediate property (200 linear feet) is erosional (landward at -0.22 ft/yr) while the 2500 foot reach for the area reveals the vegetation line is accretionary (seaward at +0.39 ft/yr). The discrepancy between the two vegetation line trends may be a function of widespread landscaping in the area or localized coastal processes that prevent the landward migration of vegetation at the subject site.

For the purpose of establishing setback the use of the toe or waterline is utilized since it is thought to be a better indicator of long-term shoreline change that cannot be manipulated as the vegetation can be. Using the toe or beach line as the Shore Reference Feature (SRF), and based on the information provided we have calculated the shoreline set back at ~130 feet. The setback was calculated as follows:

EXHIBIT 7

Table 1. DLNR Shoreline Setback Calculations:

Annual Erosion Rate (ft/yr) Rounded off to -1.0	-1.0	Ave Rate of beach Line
Error Adjustment (20%)	0.20	+ error
Sea level adjustment (10%)	0.12	+ SL adjustment
Final Adjusted erosion rate (ft /yr)	1.32	= adjusted rate
Adjusted rate X lifespan (70 years) (ft)	92.4 ft	Initial setback
Storm Event Buffer (20 feet)	20	+ storm
Design/Safety Buffer (20 feet)	20	+ safety
Erosion Zone setback (Feet)	132.4	= setback

Using the beach toe as a shoreline proxy for calculating erosion rates is the industry standard in Hawaii, as defined by the Coastal Geology Group at the University of Hawaii. It was used to calculate the erosion rates for the island of Maui, and is currently being used to calculate the erosion rates for the islands of Oahu and Kauai. The Coastal Geology Group at the University of Hawaii has established the beach toe as the best shoreline change reference feature, and has published a number of peer-reviewed scientific papers documenting shoreline erosion in the Hawaiian Islands, as well as describing modern techniques for measuring erosion rates using historical and modern aerial photographs. They have also noted the inherent problems with using vegetation line for calculating erosion rates in Hawaii, and choose to use vegetation line only as a reference for beach width.

For example, in Coyne *et al.* (1999)¹ state:

The usefulness of this feature (vegetation line) as a monitor of shoreline change is heavily compromised by human influence, such as shoreline armoring and anthropogenic cultivation of coastal vegetation, which effectively fixes the aerial extent of developable land.

The questionable significance of the vegetation line as a geologic marker outweighs the benefit of clear identification on aerial photographs.

...in a natural system, the beach toe, the high water line (HWL), and the vegetation line migrate nearly in concert from a cross-shore perspective within an envelope of seasonal profile fluctuations. A landward movement of the beach toe indicates an increased erosion hazard to coastal lands.

The OCCL is committed to protection and preservation of coastal resources. As such, the applicant may wish to revise their CDUA to better conform to the State statutes, rules, and policies governing

¹ Coyne, MA, Fletcher, CH, and Richmond, BM, 1999. Mapping Coastal Erosion Hazard Areas in Hawaii: Observations and Errors. *Journal of Coastal Research*, Special Issue 28, pp 171-184.

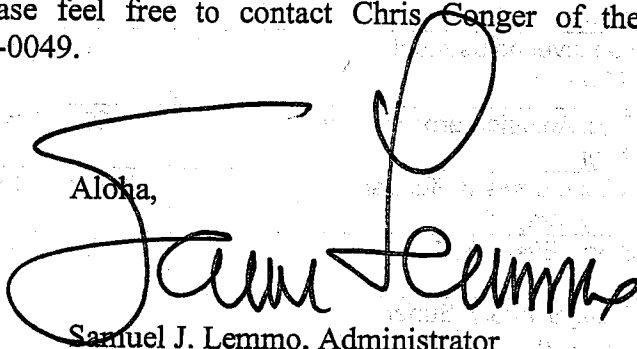
the protection and preservation of coastal lands. The OCCL will be happy to work with you so that you may design an environmentally compatible project.

The Department is returning the CDUA and DEA to you with your fee of \$100.00. The OCCL notes the filing fee is \$100.00, pursuant to HAR, Section 13-5-32, BOARD PERMITS, (a), (1).

The OCCL looks forward to your resubmitted application.

Should you have any questions please feel free to contact Chris Genger of the Office of Conservation and Coastal Lands at 587-0049.

Aloha,



Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

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DEPUTY DIRECTOR - LAND

DEAN NAKANO
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

REF:OCCL:DH

FILE NO: CDUA KA-3309

Acceptance Date: May 15, 2006
180-Day Exp. Date: November 11, 2006

Ben Welborn
Landmark Consulting Services, Inc.
P.O. Box 915
Hanalei, Hawaii 96714

MAY 15 2006

Dear Mr. Welborn:

NOTICE OF ACCEPTANCE AND PRELIM ENVIRONMENTAL DETERMINATION
Conservation District Use Application (CDUA) File No. KA-3309
(BOARD Permit)

This acknowledges the receipt and acceptance for processing CDUA KA-3309 for the proposed Browning Single Family Residence (SFR) located in the Haena District, Island of Kauai, Subject Parcel TMK: (4) 5-9-005:029.

According to your information, the 29,746 square foot (23,714 square foot pending Shoreline Certification) subject parcel is located in Haena, in the District of Hanalei, on the Island of Kauai. Access to the subject parcel is provided by Roadway "E", which provides direct access to Kuhio Highway. The subject parcel is bounded on the east by Road "E", to the north by the ocean, to the south by Kuhio Highway, and to the west by private landowners.

Existing vegetation consists of niu, golden pothos, Bermuda grass, itchy crab grass, Hilo grass, elephants foot, sourbush, wedelia, Tree heliotrope, papaya, ironwood, Alexandrian laurel, Indian almond, candle bush, Spanish clover, Java plum, buttonweed, Jamaican vervain. Animals found on the parcel were common myna, wild jungle fowl, red-crested cardinal, and Japanese white-eye. The applicant notes there are no rare or endangered native plants and/or animals present on the subject parcel.

The applicant notes an Archaeological Inventory Survey of the subject property was conducted, and no significant cultural sites and/or deposits were discovered. Utilities, such as, electrical, water, telephone, cable, and natural gas services are available to the subject property. Wastewater will be treated by an individual wastewater system septic tank.

The applicant proposes to build a 2,785 square foot elevated SFR, which includes a 319 square foot entryway, storage area, and stairs to the second level, 2,785 square feet of living space, 695 square

EXHIBIT 7

feet of decks. The living space consists of four (4) bedrooms, four (4) bathrooms, kitchen, great room, laundry room, stairwell, and storage areas. The SFR's architecture is of a simple, contemporary tropical design, and will be painted in earth tone colors. Additional landscaping is also proposed.

According to the applicant, the SFR is located in the State Land Use Conservation District, Limited subzone, and in a "Coastal High Hazard Area Susceptible to Tsunami Inundation." On Flood Insurance Rate Map (FIRM) Panel 15000-20030-D (dated October 18, 2002), the subject parcel is located within Flood Zone VE 30, which is designated as a coastal flood area with a velocity hazard due to its potential susceptibility to inundation by tsunami; Base Flood Elevations (BFE) have been determined at thirty (30) feet above mean sea level (MSL).

The existing grade of the subject parcel is approximately 15 feet to 19 feet 8 inches above MSL, thus the finished floor height of the building will range from approximately 10 feet 4 inches to 15 feet above the existing grade in order to comply with federal flood standards. This would allow the applicant to construct the enclosed living areas, and overlying roof structure of the SFR within a fifteen (15) foot building height envelope above the minimum MSL floor elevation as required by flood elevations. Therefore, the SFR has a maximum height of thirty (30) feet to meet Federal and County flood regulations.

Therefore, the applicant is requesting a variance of five (5) feet from the Maximum Height Limit of twenty-five (25) feet, pursuant to Hawaii Administrative Rules (HAR), Chapter 13-5, Section 13-5-41(a), SINGLE FAMILY RESIDENCES; STANDARDS, which notes "the maximum height of the building shall not exceed twenty-five feet, measured from the highest point of the roof structure, down to the lower of the existing or finished grade at the lowest corner of the building."

After reviewing the application, we find that:

1. The proposed use is an identified land use (L-6, SINGLE FAMILY RESIDENCES, D-1) within the Limited Subzone of the Conservation District, according to Section 13-5-23, Hawaii Administrative Rules (HAR); please be advised, however, that this finding does not constitute approval of the proposal;
2. Pursuant to Section 13-5-40(a), HAR, a public hearing will not be required; and
3. In conformance with Chapter 343, (HRS), as amended, and Chapter 11-200, HAR, a finding of no significant impact (FONSI) to the environment is anticipated for the proposed project. The draft environmental assessment (DEA) for the project will be submitted to OEQC to be published in the May 23, 2006 issue of the Environmental Notice.

Lastly, the Kauai County Planning Department notes via letter, dated February 2, 2005, that the proposed project lies within the Special Management Area (SMA), but the construction of a SFR is exempt from the County's SMA Regulations.

Unresolved Issues

The OCCL notes there are unresolved issues regarding: 1) the proposed SFR's setback and physical location in relation to the pending Shoreline Certification; 2) SFR's construction and compatibility with Chapter 13-5, HAR; 3) unauthorized fence; and 4) dumping of green waste in the shoreline area.

The OCCL reiterates that our office addressed the shoreline setback issue in prior correspondence. As noted, the OCCL is committed to protection and preservation of coastal resources. We feel that setback proposed by the applicant does not adequately protect and conserve natural resources for the benefit of present and future generations.

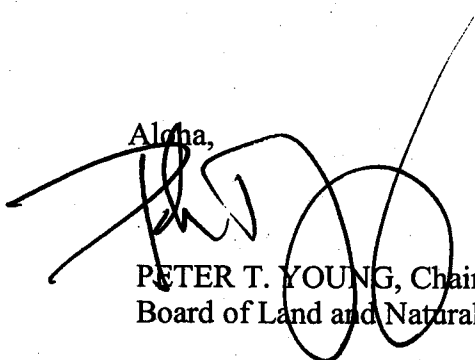
The OCCL notes the proposed SFR as presented in Site Plans does not appear to comply with our standards for single-family residential development. The proposed project shows that Bedroom 3 is still a separated room, away from the main house. The OCCL suggested that Bedroom 3 share a common wall with Bedroom 2, and to minimize the parking area. This plan may not meet the Conservation District rules, regulations, policies, and objectives.

The Department or BLNR did not approve a fence on the property nor have we authorized anyone to place green waste along the shoreline. Because these actions constitute violations, we intend to process the matter through our Hawaii Officer Administrative Penalty System (HOAPS), which will involve an administrative fine of \$500.00. In addition to this administrative fine, the green waste will need to be removed as soon as possible so the Department can continue to process the CDUA and Shoreline Certification.

Lastly, please provide landscape site plan of the area to be landscaped with a list of species to be used.

Your CDUA will be placed on the agenda of the Board of Land and Natural Resources for their consideration after all reviews and evaluations of the proposal have been made. Should you have any questions, please contact Dawn Hegger of the Office of Conservation and Coastal Lands at 587-0380.

Aloha,



PETER T. YOUNG, Chairperson
Board of Land and Natural Resources

c: DOH/OHA
KDLO/HPD/Engineering Branch/DBOR/DAR/DOFAW
County of Kauai Planning Department